AMENDMENTS TO THE CLAIMS

Please cancel claims 1-26 and add new claims 27-35, as follows.

1 - 26. (Cancelled)

27. (New) A method for protecting dopaminergic neurons in a patient against neuronal degeneration, said method comprising the steps of:

providing a patient in need of said protection; and

administering to said patient at least one substance selected from the group consisting of:

a) a GDF-15 protein of the TGF-ß superfamily or a functionally active derivative or part thereof;

b) a protein comprising the sequence shown in Fig. 7B (SEQ ID NO. 3), or homologs thereof having conservative amino acid substitutions;

c) a protein comprising the sequence shown in Fig. 8B (SEQ ID NO. 4), or homologs thereof having conservative amino acid substitutions;

d) a protein comprising amino acids 14 to 111 of the sequence shown in Fig. 8B (SEQ ID NO. 4), or homologs thereof having conservative amino acid substitutions;

e) a nucleotide sequence encoding a protein according to a) to d);

f) a vector containing at least the nucleotide sequence according to e); and

g) an agonist as a substitute of the protein according to a) to d).

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28. (New) The method according to claim 27, wherein said neuronal degeneration of dopaminergic neurons is caused by oxidation or free radical damage, or mediators or executors of neuronal death programs.

29. (New) The method according to claim 28, wherein the mediators of free radical damage are selected from the group consisting of iron, nitrous oxide, and other free radical donors, and the mediators and executors of neuronal death programs are selected from the group consisting of caspases and pro- and anti-apoptotic members of the bcl-2 family.

30. (New) The method according to claim 27, wherein said patient is a mammal suffering from a disorder characterized by a degeneration of dopaminergic neurons.

31. (New) The method according to claim 30, wherein the disorders characterized by a degeneration of dopaminergic neurons are selected from the group consisting of acute and chronic neurological disorders.

32. (New) The method according to claim 30, wherein the disorders characterized by a degeneration of dopaminergic neurons are selected from the group consisting of stroke, Parkinson's disease, Alzheimer disease, dementias, and infections of the central nervous system.

33. (New) The method according to claim 27, further comprising administering to said patient one or more agents having neurotrophic activity or functionally active derivatives

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or parts thereof.

34. (New) The method according to claim 33, wherein said one or more agents is selected from the group consisting of GDF, GDNF, TGF, activins, BMP, BDNF, NGF, EGF, CNTF and FGF.

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